

Notes on Coleoptera.—No. 3.*

By J. N. KNULL, Pennsylvania Forest Research Institute.

The following are a number of miscellaneous rearing records and observations which have been made in the last few years. Since most of the rearing was done indoors, the dates of emergence are omitted unless the material was reared under natural conditions. Clark's Valley is located in the Blue Mountains north of Harrisburg. All of the records are from Pennsylvania unless otherwise stated.

LYCIDAE

EROS HUMERALIS Fab. Larvae of this insect were found hibernating in partly decayed pitch pine (*Pinus rigida* Miller) logs at Mont Alto.

CLERIDAE

CYMATODERA BICOLOR Say. Pupae of this insect were found at Dauphin, January 18, in pupal cells in dead yellow birch (*Betula lutea* Mich.) infested with *Trichodesma* larvae and adults. The Clerid larvae had been feeding on the Anobiidae.

LECONTELLA CANCELLATA Lec. An adult was reared by the writer from a larva collected in the nest of a bee under the loose bark of a log, March 27, at Mont Alto, by A. B. Champlain. The insect emerged July 1.

THANASIMUS TRIFASCIATUS Say. Since the previous notes on this insect were published,† the following observations were made in Clark's Valley. August 11, several unhardened adults, many pupae and three larvae were found in their pupal cells in the thick bark of a dead white pine (*Pinus strobus* Linn.). In December, mature adults were taken from their pupal cells, thereby proving that the species passes the winter as either adults, or larvae in their transformation cells.

PLOEOPTERUS THORACICUS Oliv. March 6, a larva of this species was found in Clark's Valley, in a small dead branch of witch hazel (*Hamamelis virginiana* Linn.) infested with bark beetles determined by Dr. M. W. Blackman as *Lymantria de-*

* For Nos. 1 and 2 see Can. Ent., Vol. 57, p. 112-115, 1925. ENT. NEWS, Vol. 41, p. 82-86, 101-102, 1930.

† ENT. NEWS, Vol. 41, p. 82, 1930.

cipiens Lec. Adults were reared from dead willow branches collected in the same locality and infested with *Micracis swainci* Black., *Anthaxia viridicornis* Say and *Pogonocherus parvulus* Lec.

HYDNOCERA UNIFASCIATA Say. Reared from dead branches of white oak (*Quercus alba* Linn.) collected in Clark's Valley and infested with *Agrilus defectus* Lec.

H.VERTICALIS Say. Adults were reared from river birch (*Betula nigra* Linn.) infested with *Agrilus betulae* Fisher collected in Clark's Valley.

CORYNETIDAE

CREGYA OCULATUS Say. Reared from dead branches of chestnut (*Castanea dentata* Marsh.) collected in Clark's Valley and infested with *Eudceres picipes* Fab. and *Ecyrus dasycerus* Say.

ORTHOPLLEURA DAMICORNIS Fab. Reared from dead chestnut (*Castanea dentata* Marsh.) collected in Clark's Valley and infested with *Eudceres picipes* Fab. and *Ecyrus dasycerus* Say.

ELATERIDAE

ALAUUS MYOPS Fab. A larva of this species was found in a partly decayed pine log at Promised Land Lake, Pike County, feeding on adult carpenter ants (*Camponotus herculeanus pennsylvanicus* De G.), which were working in the same stick of wood.

LEPTOSCHEMA DISCALCEATUM Say. An adult was found in its pupal cell in a decayed pitch pine (*Pinus rigida* Miller) snag at Cold Springs, Adams County, July 26.

LUDIUS SULCICOLLIS Say. An adult was found in its pupal cell in a decayed pitch pine (*Pinus rigida* Miller) snag at Cold Springs, Adams County, August 16.

L. ROTUNDICOLLIS Say. The adults of this insect seem to be rather rare, probably due to their habits. The larvae on the other hand are fairly abundant, and can be found in the burrows of *Encyclops coerulea* Say and *Microclytus gazellula* Hald. in the outer bark of numerous living deciduous trees. The larvae are predaceous on the larvae of the Cerambycids and work through the galleries of the longhorns.

E. LATEUS Say. April 21, a living adult was found under the tight bark of a dead pitch pine (*Pinus rigida* Miller) at Mont Alto.

E. SELLATUS Dej. An adult was found August 16, in its pupal cell in a decayed pitch pine (*Pinus rigida* Miller) snag at Cold Springs, Adams County.

E. VITIOSUS Lec. Numerous adults were collected in their pupal cells in the decayed wood of dead beech (*Fagus grandifolia* Ehr.) trees at Sweden Valley, September 23.

E. VERTICINUS Bedov. During the winter months numerous specimens of this species with thoraces ranging from red to black in color, were found in their pupal cells under the loose bark of partly decayed pitch pine (*Pinus rigida* Miller) at Mont Alto.

E. SEMICINCTUS Rand. Adults of this species were found in their pupal cells in a decayed hemlock (*Tsuga canadensis* Linn.) stump at Cold Springs, Adams County, on August 30; also in a decayed sycamore (*Platanus occidentalis* Linn.) log at Caledonia, on March 27.

E. XANTHOMUS Germ. Many adults were found during the winter months in their pupal cells under the loose bark of partly decayed pitch pine (*Pinus rigida* Miller) logs on the Mont Alto State Forest, Franklin County. The larvae work through the partly decayed inner bark and make pupal cells between the loose bark and the wood where they transform to adults in the fall.

MELANOTUS COMMUNIS Gyll. Adults of this species are found through the winter months in their pupal cells under the loose bark of partly decayed pitch pine (*Pinus rigida* Miller) and white pine (*Pinus strobus* Linn.) logs at Mont Alto.

M. FISSILIS Say. Adults were found in their pupal cells in decayed pitch pine (*Pinus rigida* Miller) logs at Mont Alto, during the winter months.

MELASIDÆ

MELASIS PECTINICORNIS Melsh. On January 16, many living adults were chopped from a dead standing black gum (*Nyssa sylvatica* Marsh.) at Dauphin. The tree was about three inches in diameter and contained larvae also.

FORNAX ORCHESIDES Newm. Pupae of this insect were found in cells in the moist decayed wood in a living beech (*Fagus grandifolia* Ehr.) at Laporte, on September 7.

BUPRESTIDAE

DICERCA DIVARICATA Say. Adults reared from the dead wood of white oak (*Quercus alba* Linn.) and striped maple (*Acer pennsylvanicum* Linn.) collected in Clark's Valley. Also reared from red oak (*Quercus rubra* Linn.) collected at Towanda.

POECILONOTA CYANIPES Say. The larvae of this beetle work in the sapwood of living poplars (*Populus granidentata* Mich. and *P. tremuloides* Mich.) throughout Pennsylvania. The eggs are laid around wounds or roughened areas on trees often four inches in diameter and the irregular burrows frequently extend up the stems five inches.

CINYRA GRACILIPES Melsh. Adults were reared from dead branches of post oak (*Quercus stellata* Wang.) collected in Clark's Valley.

BUPRESTIS LINEATA Fab. Adults reared June 7, from the thick bark of white pine (*Pinus strobus* Linn.) collected at Black Gap. None of the larvae had entered the wood but confined their burrows and pupal cells to the bark.

AGRILUS SUBCINCTUS Gory. This insect was found breeding in the small dead branches of green ash (*Fraxinus pennsylvanica* var. *lanccolata* Sarg.) at Pond Bank. The dead branches had been killed by the oyster shell scale and the adults were numerous on the foliage of the living trees.

MELANDRYIDAE

MELANDRYA STRIATA Say. Reared from the wood of dead sassafras (*Sassafras variifolium* Salisby.) collected in Clark's Valley.

(To be continued).

Honor to Dr. L. O. Howard Abroad.

Dr. L. O. HOWARD, whose present address is 12 Quai d'Orleans, Paris, France, has recently been elected to honorary membership in la Société Linnéenne de Bordeaux. JOE S. WADE.